

CBRAT Glossary of Terms

Term	Definition
Abyssal	> 2000 – 6000m. This zone has a temperature of 4°C or less. It is the largest benthic ocean zone.
Abyssopelagic	> 2000 – 6000m
Active	Captures planktonic particles by pumping or sweeping water past a filter.
Actively mobile	Mobility is a normal part of at least part of the adult life cycle – at least in spurts. Not dependent upon distance traveled.
Adhesion	Adheres to substrate by foot or is cemented.
Alpha-euhaline	36 – < 40 psu
Alpha-mesohaline	10 – < 18 psu
Alpha-oligohaline	3 – < 5 psu
Alpha-polyhaline	25 – < 30 psu
Ametabolous	Juvenile development with no major change in body form.
Anadromous	Fish that spend most of their lives in saltwater and migrate to freshwater to breed
Artificial	Rocks placed in estuaries, such as rip rap.
Artificial Substrate	Hard substrates placed into estuarine or oceanic environments.
Asexual reproduction	Reproduction without the fusion of gametes.
Attached	Species attached to or bores into a consolidated substrate.
Bathyal	> 200 – 2000m. This benthic zone is below the euphotic zone and extends down the continental slope.
Bathypelagic	> 1000 – 2000m
Bedrock	Unbroken rock. Includes both hard rocks and softer rocks, such as chalk.
Benthic	Associated with the seafloor.
Benthic larvae	Larvae that remain on the bottom or within the tubes of adults.
Benthopelagic	Animals living all or part of their life in the water column directly above but not on the bottom.
Beta-euhaline	30 – < 36 psu
Beta-mesohaline	5 – < 10 psu
Beta-oligohaline	0.5 – < 3 psu
Beta-polyhaline	18 – < 25 psu
Binary fission	Splitting into two approximately equal parts.
Biogenic	Substrate composed of the surface of living or dead organisms.
Borer	Organisms that bore into living or dead consolidated substrate.
Boulder	Substrates composed of particles >256mm but not forming a single unbroken surface.
Brackish	0.5 – < 30 psu
Broadcast spawner	Both males and females discharge gametes into the water column.
Brooded	The larval phase is brooded within the adult or tube of the adult.
Bryozoan mats	Dense cover of bryozoans forming a mat on substrate.
Budding and fragmentation	Splitting into unequal parts. Buds may form on the body of the “parent”.
Burrowing	Through sediment

Burrowing Shrimp (Tide Flats)	Sediment environments that are composed of shrimp burrows. These environments are usually dominated by one species of shrimp (e.g., <i>Neotrypaea</i> sp.).
Byssally attached	Species attached to the substrate with byssal threads (organic filaments), such as many mussels.
Carbonate	Primarily composed of carbonate sediments, such as corals and maerl.
Carbonate Sediment	A sediment environment composed of calcium carbonate. Sources include shells, calcified algae, and coral skeletons.
Catadromous	Fish that spend most of their lives in freshwater and migrate to saltwater to breed
Caves	A chamber formed by rocks or another hard substrate (i.e. lava tubes) in the intertidal zone.
Cemented	Species cemented directly to the substrate, such as barnacles and serpulid worms.
Chemoautotrophic Bacteria	Chemoautotrophs are organisms, typically bacteria that derive their energy from inorganic sources, including sulfides and ferrous iron. Chemoautotrophic bacteria are known to live symbiotically with certain clams, such as some lucinids in reduced sediments, providing nutrients to their host.
Chemosynthetic	Metabolic energy derived from oxidation of methane, hydrogen sulfide, or other reduced molecules.
Clastic Sediment (Coastal Shore)	A sediment environment composed of rock fragments.
Clay	Unconsolidated sediment composed of >75%, by weight, particles in the size range of 0.001–0.004mm.
Clay (Borer)	Organisms that bore into hard clays.
Clean cobble	Cobble sediment with <5% sand and mud intermixed.
Clean gravel	Gravel substrate with <5% mud and sand intermixed.
Coarse sand	Unconsolidated sediment composed of >75%, by weight, particles in the size range of 0.5 – 2mm.
Coastal Bay	A semi-enclosed segment of a coastline that has marine salinities or only slightly reduced salinities.
Coastal Fringe	Area between terrestrial and nearshore or estuarine ecosystems with primarily terrestrial characteristics but strongly effected by bordering aquatic ecosystem (e.g., sand dunes, estuarine shrub/scrub wetland, estuarine forest wetland).
Coastal Shore	Sediment environments along the coast that are affected by the tides and water activity (shore waves). Ex. sandy beaches.
Cobble	Unconsolidated sediment composed of > 75% by weight of particles in the size range of 64–256mm. In some classifications, cobble is considered consolidated sediment.
Cobble w/mud	Cobble sediment with > 5% mud intermixed.
Cobble w/sand	Cobble sediment with > 5% sand intermixed
Cold seeps	Areas of the ocean's bottom where hydrogen sulfide-rich, methane-rich, or other hydrocarbon-rich water is discharged. Food webs around seeps are often based on chemosynthetic bacteria rather than photosynthesis. Most seeps are deep though some are located at < 200m depth.
Consolidated	Substrates composed of particles > 256mm or of unbroken rock. Substrate not moved by organisms or tidal or ocean currents except in extreme storms.
Consolidated Ecosystems	Ecosystem types associated with hard substrate.

Coral	Areas where the consolidated substrate is dominated by reef forming coral animals.
Coral (substrate)	Substrate primarily composed of living or dead corals. Coral broken into silt, clay, sand, or cobble-sized particles are classified as unconsolidated carbonate sediments.
Coral reef ecosystem	Ecosystem associated with reefs formed by hermatypic corals.
Coralline Algae	Hard substrate that is predominantly composed of calcified algae. The algae can either be the encrusting form or the unattached rhodolith form.
Crawling	On sediment or rock. Nereis in mussel beds
Cryptofauna	Sessile and vagile organisms living in the interstices and crevices formed by epibenthic organisms or their structures, such as formed by mussel beds, living corals, and coral rubble.
Decomposer	Organisms that breakdown and digest dead organisms. Bacteria and fungi are major decomposer groups.
Deep	> 30 – 200m
Deep (macrofauna)	≥ 5 cm deep
Deep Subtidal	> 30 – 200m
Deep/cold water corals	Corals found in deep, cold waters; many are solitary but some may form “reefs” or mounds.
Demersal	Mobile animals living on or near the bottom and that swim as a normal part of their routine and not just in response to disturbance.
Deposit Feeder	Ingests sediment particles, feeding on the associated detritus, microflora, and microorganisms.
Deposited in environment	Eggs are laid directly in the environment in an egg case, egg mass, or spawned into the water column.
Detritivore	In contrast to scavengers, feed on small detritus (i.e., plant and animal remains).
Direct development	Development without a larval phase.
Disease	Microorganisms living in or on a host and resulting in deleterious impacts. Also called pathogens.
Drift	Non-planktonic species that passively drift in the currents. This includes benthic macroalgae and stands of SAV that drift in the currents as well as the animals associated with the floating algae and/or SAV. It also includes plants and animals associated with drifting debris.
Drift wood	Natural drift wood.
Dune	Sand hills or ridges on land that are created by wind.
Duration of larval phase	Maximum duration of larval phase in days.
Ectoparasite	External parasite, including gill parasites.
Egg mass carried by female	Eggs are carried as an external mass by the female (e.g., berried crab).
Emergent Marsh	Intertidal sediment environments dominated by vegetation that is rooted in the soil (i.e., marsh grasses and salt tolerant succulents).
Endoparasite	Internal parasite.
Epibenthic consolidated	Sessile (e.g., barnacles, algae) and vagile (e.g., snails) organisms living on the surface of rocks (epilithic) or other inorganic hard substrates including man-made structures.
Epibenthic swimming	Animals living in direct contact with the sediment that are able to swim as part of its normal adult life cycle, such as flatfish.
Epibenthic unconsolidated	Organisms living on mud (epipelagic) or sand (epipsammic), including mobile non-swimming fauna that primarily live on the surface of the

	sediment, macrophytes growing in the sediment, and microflora living on mud or sand particles.
Epibiotic	Organisms living on surface of a living or dead organism. Relationship may be mutualistic, parasitic, or commensal. Classified as pelagic or benthic depending upon species it colonizes.
Epifauna consolidated	Sessile and vagile animals living on the surface of rocks and other inorganic hard substrates.
Epifauna unconsolidated	Non-swimming mobile animals living on the surface of unconsolidated substrates. Larger species sampled in trawls, such as sea cucumbers and scallops, are referred to as megabenthos.
Epipelagic	0 – 200m
Epiphytic	Living on surface of living or dead plant.
Epiphytos consolidated	Plants, including macrophytes, macroalgae and microflora, living on the surface of rocks and other inorganic hard substrates.
Epiphytos unconsolidated	Plants, including macrophytes, macroalgae, and microflora living in or on the surface of unconsolidated substrates, including diatoms attached to mud or sand particles. Macrophytes (e.g., <i>Zostera</i>) are included so as to capture the primary producers as well the soft-bottom fauna.
Epizoic	Living on surface of a living or dead animal.
Estuarine	Rocks found subtidally in estuaries.
Estuary	A semi-enclosed coastal water body with one or more rivers or streams flowing into it and with a connection to the ocean. Salinities in estuaries are normally below that of the bordering ocean water.
Eurythermal	Species with a wide temperature range, such as many intertidal species and species with wide geographic distributions.
Exposed	“High ambient wave conditions usually prevail within this exposure category, which is typical of open-ocean type conditions.” Max. fetch distances >500 km.
Facultative	Switches between feeding mechanisms, such as suspension feeding and deposit feeding.
Facultatively mobile	Species with limited mobility, in particular to repositioning themselves in response to environmental disturbances (e.g., sea anemones)
Fast	A general term for species that swim at a high velocity, such as tuna, mackerel, and certain squid.
Fine sand	Unconsolidated sediment composed of >75%, by weight, particles in the size range of 0.063 – 0.25mm.
Fertilization External Eggs	Female lays egg mass and male fertilizes externally.
Free living (Immobile)	Infaunal species that does not live in a tube.
Free living (Larval Phase)	The larval phase is totally separated from the adult.
Freecast spawners	In animals, males and/or females discharge gametes directly into the water column.
Folivore	Feeds on leaves.
Fouling	Hard substrate such as a boat hull that supports a community of organisms.
Floating Debris	Aggregated floating debris in the open ocean.
Floating Vascular Plants	Large mats/rafts of plants or algae that float unattached on the water's surface in the open ocean.
Fragments	Animals or plants that can disperse through transport of fragments.
Freshwater	< 0.5 psu
Gonochoristic / Dioecious	Having separate sexes. In plants, male and female flowers are produced on different individuals

Gravel	Unconsolidated sediment composed of >75%, by weight, of particles in the range of 2 – 64mm.
Gravel w/mud	Gravel substrate with > 5% mud intermixed.
Gravel w/sand	Gravel substrate with > 5% sand intermixed.
Gravelly mud	Unconsolidated sediment where gravel >5% but <30% of the weight and the percentage of mud exceeds the percentage of sand.
Gravelly sand	Unconsolidated sediment where gravel >5% but <30% of the weight and the percentage of sand exceeds the percentage of mud.
Grazer	An organism that feeds by rasping benthic algae from sediment, rocks, or leaf surfaces. May consume some smaller benthic organisms, but if animals are dominant food source, the species is classified as a predator.
Hadal	> 6000m. The deepest areas of the sea, including ocean trenches.
Hadopelagic	> 6000m
Haploid/diploid phases	In plants, fungi, and some microorganisms, an alternation of multicellular haploid and diploid phases.
Hemimetabolous	Juvenile development with incomplete metamorphosis. In insects, consisting of an egg, nymph, and adult stage.
Hardpan	Sand, silt, or clay particles that are slightly cemented to well cemented together to form a hard, and often flat, consolidated surface.
Herbivore	An organism that feeds on plants. Species feeding on phytoplankton via suspension feeding are covered under “Suspension Feeders”.
Hermaphrodite/Monoecious	Organisms having both male and female sexual organs.
Heterogamy	Alternation between sexual and asexual reproductive phases.
High energy	Strong currents (> 4 knots or > 2.056 m/sec or >7.408 km/hr)
Holometabolous	Juvenile development with complete metamorphosis. In insects, consisting of an embryo, larva, pupa, and imago (adult) stage.
Holoplankton	Species that are planktonic for their entire life cycle
Hulls & Ballast tanks	Hard substrate on the exterior or interior of ships and boats, including derelict or decommissioned ships.
Hydrothermal vents	Areas of the ocean bottom located in subduction zones where heated water is discharged through fissures in the ocean crust. Food webs around seeps are often based on chemosynthetic bacteria rather than photosynthesis. Most vents are deep though some are located at < 200m depth.
Hyperbenthos	Benthic animals that make periodic forays from the bottom into the water column, such as some of the corophiid amphipods.
Hypersaline	≥ 40 psu
Immobile	Species with no ability to move as an adult.
Infauna	Animals living within unconsolidated sediment.
Infaunal – Immobile	Soft sediment only.
Internal fertilization	Copulation with both eggs and sperm internal.
Intertidal (MLLW-MHHW)	The zone between the average daily highest high tide and the average daily lowest low tide. This zone is periodically submerged by water or exposed to air. Also referred to as the littoral zone, though some publications use littoral to include the shallow subtidal.
Isolated coral heads	Solitary heads of living corals; may be composed of isolated heads of reef-forming corals or non-reef forming corals.
Kelp	Hard substrate that supports the growth of very large brown algae (Laminariales and/or Fucales). These habitats tend to be subtidal and occur in mid and high latitudes.
Kleptoparasite	Parasites that feed on the food items that the host has collected.

Lagoon	Shallow coastal water bodies separated from the ocean by a barrier island or by shallow or exposed sandbanks or coral reefs. Depending upon freshwater inputs and connection to the ocean, salinity in lagoons can range from essentially fresh to hypersaline.
Lakes and Ponds (Lentic)	Body of standing fresh water, including wetlands.
Larval phase	Development with a morphologically distinct, free-living dispersive stage. Often occupies a different habitat than the adult.
Lecithotrophy	Larvae that derive nourishment from yolk.
Living corals	Ecosystem associated with living hermatypic coral reefs.
Low energy	Weak currents (0–2 knots or 0 – 1.028 m/sec or 0–3.704 km/hr)
Lower Intertidal	Lowest intertidal zone, predominantly submerged by water.
Macroalgal Beds	Sediment environments where macroalgae are dominant and shape the habitat characteristics (e.g., algal mats of <i>Ulva</i> , <i>Porphyra</i>).
Macrofauna	Animals living within unconsolidated sediment that are large enough to displace sediment particles. Macrofauna can be operationally defined as animals retained on 0.5mm mesh screen. Macrofauna generally have more direct contact with overlying water than meiofauna.
Mangrove	Intertidal sediment environments dominated by salt-tolerant trees and shrubs. Found in tropical and subtropical areas.
Marine/Euhaline	30 – < 40 psu
Medium sand	Unconsolidated sediment composed of > 75%, by weight, particles in the size range of 0.25 – 0.5mm.
Medusa/polyp phases	In Cnidaria, an alternation between a polypoid benthic stage and a free-living medusoid stage.
Meiofauna	Animals living within the interstitial spaces in unconsolidated sediments. There is not agreed upon size range, but they can be operationally defined as organisms less than 0.5mm and greater than 50 microns.
Meroplankton	Species that are planktonic for only part of their life cycle, usually the larval phase.
Mesohaline	5 – < 18 psu
Mesopelagic	> 200 – 1000m
Mesothermal	Species with a moderate temperature range; species with a moderate temperature tolerance.
Microfauna	Multicellular and single-celled organisms living within interstitial spaces in unconsolidated sediments, and smaller than meiofauna. Can be operationally defined as organisms less than 50 microns.
Microlayer	The boundary between the atmosphere and the water, defined as the surface 1mm of the water.
Mid Intertidal	Between the highest and lowest intertidal zone.
Migratory	Fish that spend most of their lives in fresh or salt water but then migrate to the opposite salinity to breed.
Mineral	Primarily composed of rock fragments.
Mixed fines	Combination of mud and sand, where the two classes constitute >95% of the weight. Do not confuse with “mixed sediments”, a mixture of mud/sand and cobble/gravel/rock.
Mixed sediments	Unconsolidated sediment composed of both sand and mud with gravel or cobble, where gravel and cobble constitute >5% but <75% of the sediment weight. Do not confuse with “mixed fines”.
Moderate energy	Moderate currents (2–4 knots or 1.028–2.056 m/sec or 3.704–7.408 km/hr)

Monoecious (plants)	Plants having separate male and female flowers on the same individual plant.
Mud	Unconsolidated sediment composed of > 75%, by weight, particles < 0.063mm in size. The combination of clay and silt is referred to as “fines”.
Muddy gravel	Unconsolidated sediment where gravel > 30% but < 75% of the weight and the percentage of mud exceeds the percentage of sand.
Muddy sand	Unconsolidated substrate where mud constitutes < 50 to 75 % and sand 25 – 50% of the weight.
Mussel	Substrate primarily composed of living or dead mussel shells. Shells broken into clay, silt, sand, or cobble-sized particles are classified as unconsolidated carbonate sediments.
Mussel Beds	Dense aggregations of mussels.
Natural	Natural rocks in estuaries.
Nearshore	0 – 30m. The outer coast; from the intertidal to 30m bathymetric isopleth.
Nektonic	Swims against current in water column.
Neritic	> 0 – 200m. Subtidal zone extending from the low water mark to the approximate edge of the continental shelf. Also referred to as the sublittoral zone.
Nestler	Bivalve or other animal living within an existing crevice in a consolidated substrate, such as Hiatella. The “WN” class of Todd (2001).
Nestler / Borer	Species that lives within an existing crevice in a consolidated substrate (nestler) or a species that bores into a consolidated substrate (borer).
Neuston	Pelagic organisms that float at the water surface but do not protrude above the sea surface as do pleuston.
No energy	No detectable currents.
Non-coral reefs	Hard substrate with substantial relief (i.e., reef) that is composed of taxa other than corals.
Non-living coral reef	Ecosystem associated with dead hermatypic coral reefs (e.g., coral blocks).
Non-reef corals	Biologically generated areas of physical relief other than the reefs formed by hermatypic corals.
Obligate	Feeds only with one type of feeding mechanism.
Oceanic	> 200m bathymetric isopleths. Includes the benthos and water above the continental slope and ocean floor.
Oligohaline	0.5 – < 5 psu
Organic Sediment	Sediment with high proportion of vegetative detritus. > 30% organic matter (> 17% organic carbon) according to Howes and Kenik (1997).
Oviparous	Eggs are laid by the female and develop outside of either parent.
Ovoviviparous (brooder)	Eggs develop within the female, or male in some cases, but the embryo derives no nourishment from the parent. A brooder.
Oyster	Substrate primarily composed of living or dead oyster shells. Shells broken into clay, silt, sand, or cobble-sized particles are classified as unconsolidated carbonate sediments.
Oyster Beds	Substrate that is covered or formed by oyster shells.
Parasite/Disease	Organisms that feed on host and are physiologically / metabolically dependent upon host. Usually smaller than host.
Parthenogenesis Agamospermy	In animals, parthenogenesis is the development of an unfertilized egg. In plants, agamospermy (apomixes) is the production of fertile seeds without pollination.

Passive	Utilizes ocean currents to transport planktonic particles past a particle-trapping mechanism, such a filter or sticky trap.
Passively mobile	Although may be capable of some limited local movement, the overall movement in the environment is due to water currents.
Pelagic	The estuary or ocean water column and unobstructed surface. Open water.
Pelagic Ecosystems	The ocean water column and unobstructed surface. Open water.
Pelagic submerged	Free-living pelagic organisms that spend all or the vast majority of their time fully submerged under the surface, and are not closely associated with the layer immediately above the bottom.
Periodic mobility	Species that show intermittent periods of no or limited mobility coupled with periods of active mobility. This includes many of the hyperbenthic species.
Permanent benthopelagic	Animals that spends all or most of their adult life living in the water column above the bottom.
Piling	Hard substrate provided by concrete and wood piling and piers to support docks, bridges, and other superstructures.
Planktonic	In water column
Planktotrophy	Larvae that derive nourishment by feeding.
Pleuston	Buoyant organisms with part of the body protruding above the sea surface and often subject to wind drift. Includes both animals, such as the Portuguese Man-of-War and Velella and plants floating at the surface.
Polyhaline	18 – < 30 psu
Photosynthetic	Metabolic energy derived from photosynthesis.
Planktonic larvae	Larvae that spend at least part of the larval phase in the water column.
Pollination	In plants, fertilization of female floral structures by pollen.
Predator	Feeds on animals.
Primary Producer	Metabolic energy derived from sunlight or chemosynthesis in contrast to consumption of other organisms.
Primary space holder	Facultative mobile or non-mobile organisms directly colonizing the substrate surface and occupying space.
Protandry	Initially a male and changes to a female.
Protected	“Usually areas of provisional anchorages and low wave exposure except in extreme winds.” Fetch <10 km.
Protogyny	Initially a female and changes to a male.
Quaternary Consumer	Predator feeding primarily on tertiary consumers. Also called a Tertiary predator.
Quinary Consumer	Predator feeding primarily on quaternary consumers. Also called a Quaternary predator.
Reclining	Brachiopods “floating horizontally on (or partially within) the sediment with the pedicle valve as the lower valve.” (http://paleo.cortland.edu/tutorial/Brachiopods/brachmorph.htm)
Rhodoliths / Maerl	Free-living (unattached) masses of coralline algae (Order Corallinales) forming a hard substrate. Large aggregations of rhodoliths can form beds covering hectares. Referred to as maerl in Europe.
Rip rap	Hard substrate provided by rocks and concrete used in break walls, groins, jetties, and shoreline armoring.
Rivers, Streams, and Creeks (Lotic)	Flowing bodies of freshwater, including riparian zones.
Rock (Borer)	Organisms that bore into rocks or artificial hard substrate. The endolithobiont of Taylor and Wilson (2002).

Rocky Intertidal	Rocky environments on the coastal shore that are periodically exposed to both air and water. The zone between the high and low tide marks.
Rooted	Vascular Plants
Rooted Aquatic	Substrate provided by the leaves of rooted aquatic vegetation, including emergent vegetation.
Rubble/Hash	Sediment environments where the bottom is composed mostly of shell hash and rubble.
Saline lagoons	Bodies of saline water wholly or mostly separated from the sea by dunes or rock barriers, and retain water during low tide. Sea water exchange with the adjoining or estuary can occur through percolation, channels, or overwash. Salinity can vary from nearly fresh to hypersaline.
Sand	Unconsolidated sediment composed of > 75%, by weight, particles in the size range of 0.063 – 2mm.
Sandy gravel	Unconsolidated sediment where gravel > 30% but < 75% of the weight and the percentage of sand exceeds the percentage of mud.
Sandy mud	Unconsolidated substrate where mud constitutes 25 – 50% and sand 50-75% of the weight.
Scavenger	Feeds on dead organic material. Usually used for species feeding on larger particles or animal remains
Sea mounts	An ocean mountain that does not reach the sea surface. Most are volcanic in origin. Typically deep but some are less than 200 m deep.
Secondary Consumer	Predator feeding primarily on herbivores. Also called a Primary predator.
Secondary space holder	Facultative mobile or non-mobile epibiotic organisms colonizing the surface of a primary space holder.
Sedentary	Limited movement but a normal part of the adult life
Seeds	Plants that can disperse through seeds.
Semi-exposed	“Swell, generated in areas distant from the shore unit create relatively high wave conditions. During storms, extremely large waves create high wave exposures.” Max. fetch distance between 50 and 500 km.
Semi-infauna	Animals partially buried in mud or sand and partially exposed in the water column, such as the bivalve <i>Modiolus</i> (see Bush et al., 2007).
Semi-protected	“Waves are low most of the time except during high winds.” Fetch in range of 10 – 50 km.
Sequential Hermaphrodite (animal)	Animals that change from one sex to the other.
Serpulid	Reefs or aggregations composed of the calcareous tubes of polychaetes of the family Serpulidae.
Sexual Reproduction	Reproduction through the fusion of gametes (fertilization).
Shallow	> 1 – 30m
Shallow (macrofauna)	< 5 cm deep
Shallow Subtidal	> 0 – 30m
Shelf	30 – 200m bathymetric isopleths. The benthos and water above that borders the continent and extends out to where there is an increased slope of the seafloor, approximately 200m depth.
Shell & Coral	Organisms that bore into living and dead shells, including corals. The endozoobiont of Taylor and Wilson (2002).
Siliceous ooze	Composed of > 30% siliceous remains from diatoms, radiolarians, siliceous sponges, and silicoflagellates.
Silt	Unconsolidated sediment composed of > 75%, by weight, particles in the size range of 0.004–0.063mm

Slow	A general term for species that normally swim at a low velocity, such as ocean sunfish, sea horses, flatfish, and crabs. Such species may be capable of short bursts of fast swimming.
Specialized Systems	Ecosystems composed of benthic and pelagic habitats with physical and/or chemical characteristics distinct from surrounding ecosystems.
Spermcast spawner	Only male discharges gametes into the water column.
Sponge	Reefs or aggregations composed of sponges.
Spores	Animals or plants that can disperse through transport of spores.
Sporogenesis	Reproduction and dispersal through formation of spores. Spores differ from seeds in having little food reserves. Most spores are haploid and may be part of an alternation of haploid and diploid life history stages. Red algae have both diploid and haploid spores.
Stenothermal	Species with a narrow temperature range, such as deeper water and Antarctic species.
Submerged Aquatic Vegetation	Sediment environments that include and are dominated by aquatic plants that are covered by water, i.e., seagrasses.
Subsurface Deposit Feeder	Ingests subsurface particles.
Subtidal	Sediment that is covered by a body of water at all times, without exposure to air due to tides.
Subtidal Rocky	Rocky environments below low tide mark that are always submerged by water.
Supralittoral	Area above the high water level that is periodically wetted by breaking waves or during extreme storms. The splash zone.
Surface	0 – 1m
Surface Deposit Feeder	Ingests particles at the sediment interface.
Surficial (Epibenthic Non swimming)	Organisms living on the surface of either consolidated or unconsolidated substrate, including both sessile and vagile species but not species that routinely swim.
Suspension Feeder	Feeds on phytoplankton, zooplankton, and/or suspended particles in the water column.
Symbiotic Algae	Species deriving nutrition from symbiotic microflora, such as many corals. This classification is for the host species; the microflora would be classified as a primary producer.
Synchronous Hermaphrodite (animal)	Animals having both male and female sexual organs at the same time (= simultaneous hermaphrodites).
Teleplanic	Larvae with an extended planktonic phase and a corresponding capacity for long-distance dispersal.
Terrestrial	Land areas not directly impinging upon aquatic ecosystems.
Tertiary Consumer	Predator feeding primarily on secondary consumers. Also called a Secondary predator.
Tide Flats	Relatively flat, sediment areas that are submerged or exposed by the changing tides. Includes mud flats.
Tide Pool	A pool of water left behind by the receding tide. Commonly found in the rocky intertidal.
Tubicolous	Species living in a mud, sand, organic, or calcareous tube.
Unattached (Facultatively mobile)	Species with no permanent attachment to the substrate, and which have limited mobility, such as several larger, deeper burrowing bivalves in mud or sands.
Unattached (Immobile)	Species that spends its adult life not attached to substrate

Unconsolidated	Substrate composed of individual particles < 256mm that are not cemented together. Substrate that can be moved by tidal or ocean currents or moved by larger organisms.
Unconsolidated Ecosystems	Ecosystem types associated with sediment.
Under Rocks	Species that live beneath rock or other hard substrates (e.g., shell rubble, debris).
Unvegetated Sand/Mud	Sediment environments where plants or algae do not dominate. Exposed sediment.
Upper Intertidal	Highest intertidal zone, predominantly exposed to the air.
Vegetative propagation	Formation of new individuals in plants without the production of spores or seeds by stolons (runners) or formation of bulbs. Forms a plant colony.
Vermetid	Reefs or aggregations composed of the calcareous tubes of gastropods of the family Vermetidae.
Very Protected	“Usually the location of all-weather anchorages, marinas and harbors.” Max. fetch < 1 km.
Viviparous	Development takes place within the female and embryo derives nourishment from the mother.
Water Column	Open water habitat where organisms are completely surrounded by water (no surfaces, sides, or floors); within the pelagic zone.
Wood	Hard substrate that is predominantly composed of wood. (e.g., drift wood).
Wood (Borer)	Organisms that bore into living or dead wood. The endoxylobiont of Taylor and Wilson (2002).
Worm reef	Substrate provided by worms with hard tubes constructed of sand grains or calcium carbonate (e.g., Sabellariidae).
Wrack	Dried vegetation and associated debris usually left behind by the receding tide.